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United States  
Department of  
Agriculture

Forest Service

Northeastern  
Research Station

Research Note NE-364



# Bulletin of Hardwood Market Statistics: First Half - 1997

Jean W. Nolley

## Abstract

Provides current and historical information on primary and secondary hardwood products, production, prices, international trade, and employment.

## Introduction

Data contained in this bulletin are intended to provide a general overview of recent trends in the hardwood market for use by hardwood-related industries, forest managers, the academic community, and the general public. The statistics presented in this bulletin are not inclusive. Specific series were selected on the basis of their availability and completeness, and were derived from a variety of sources. Questions about data collection procedures should be directed to the issuing agency or organization.

The import and export data for hardwood logs, lumber, veneer, and plywood reported here are reproduced in their entirety as received from the U.S. Department of Commerce, Bureau of the Census. Reporting errors have occurred in the

past due to coding and computing program errors and changes in tariff systems. For information on these errors, see Luppold (1995). Readers interested in export and import data are encouraged to reference additional sources when evaluating international trade statistics. For additional information on the international trade series presented here, please contact Bruce Hansen at 304-431-2739.

Readers interested in price data for specific subregions of the domestic hardwood market are encouraged to contact state forestry officials for information on local market conditions.

Your input is critical in helping us make this bulletin more useful. We welcome comments or suggestions on additional data series to include or different breakdowns of the data currently reported. Copies of this bulletin are free upon request. Send your comments and requests to Jean W. Nolley at the address below.

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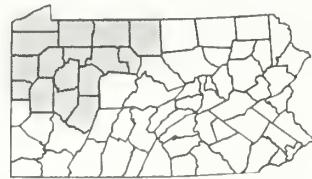
**Tables Included in This Series of Reports and Frequency of Update**

Number	Title	Frequency of update
<b>Hardwood Stumpage, Log, and Lumber Prices</b>		
1	Average hardwood stumpage prices in northwestern Pennsylvania, 1992-97	Quarterly
2	Average hardwood stumpage prices in Missouri, statewide, 1992-97	Quarterly
3	Average hardwood stumpage prices in Maine, statewide, 1991-95	Yearly
4	Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1992-97	Bi-monthly
5	Average hardwood stumpage prices in Ohio, statewide, 1992-97	Bi-annual
6	Average hardwood mill prices of grade 1 logs in northwestern Pennsylvania, 1992-97	Quarterly
7	Average hardwood mill prices of grade 1 logs in Missouri, statewide, 1992-97	Quarterly
8	Average hardwood mill prices of grade 1 logs in eastern Tennessee, 1992-97	Quarterly
9	Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1992-97	Bi-monthly
10	Average hardwood mill prices of red oak logs in Ohio, statewide, 1992-97	Bi-annual
11	Air-dried hardwood lumber prices, 1992-97	Quarterly
12	Kiln-dried hardwood lumber prices, 1992-97	Monthly
<b>Hardwood Product Prices, Production, and Employment</b>		
13	Producer price indexes for selected wood industries, 1992-97	Quarterly
14	Value of domestic wood furniture shipments and wood furniture imports, 1991-96	Yearly
15	Production of oak strip flooring, 1991-96	Yearly
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<b>International Hardwood Product Trade</b>		
17	International exchange rate, foreign currency per U.S. dollar, 1992-97	Quarterly
18	Volume and value of U.S. hardwood log exports, by region, 1992-97	Quarterly
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20	Volume and value of U.S. hardwood veneer exports, by region, 1992-97	Quarterly
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25	Volume and value of U.S. hardwood plywood imports, by region, 1992-97	Quarterly
26	Value of U.S. wood furniture imports, by region, 1992-97	Quarterly
27	Volume and value of U.S. exports of nonconiferous chips, by region, 1992-97	Quarterly

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## HARDWOOD STUMPPAGE, LOG, AND LUMBER PRICES

**Table 1.--Average hardwood stumpage prices in northwestern Pennsylvania, 1992-97**  
(Dollars/Mbf, International 1/4" scale)



Year/quarter	Red oak	White oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1992	351	187	544	123	76	60
1993	479	235	748	194	114	93
1994	519	243	891	221	136	119
1995	499	232	813	190	123	128
1996/1	468	230	786	187	97	110
1996/2	494	227	747	191	105	94
1996/3	503	245	809	186	109	117
1996/4	483	206	817	217	130	125
1996 avg.	487	227	790	195	110	112
1997/1	483	206	817	217	130	125
1997/2	508	228	933	278	163	142
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--

Source: Cooperative Extension Service, U.S. Department of Agriculture, The Pennsylvania State University.

**Table 2.--Average hardwood stumpage prices in Missouri, statewide, 1992-97**  
(Dollars/Mbf, International 1/4" scale)

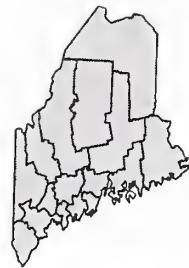


Year/quarter	Red oak	White oak	Ash	Hard maple	Soft maple	Mixed hardwoods
1992	99	109	96	NA	71	62
1993	116	113	140	75	67	76
1994	154	144	158	50	90	104
1995	175	142	129	NA	NA	94
1996/1	130	125	65	NA	45	65
1996/2	135	135	115	NA	50	145
1996/3	150	135	65	NA	NA	150
1996/4	170	210	495	NA	NA	95
1996 avg.	146	151	185	NA	NA	114
1997/1	150	140	50	195	90	50
1997/2	155	160	NA	180	95	75
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--

NA - Not available.

Source: Missouri Department of Conservation, Forestry Division.

**Table 3.--Average hardwood stumpage prices in Maine,  
statewide, 1992-95**  
(Dollars/Mbf, International 1/4" scale)



Year	Oak	Yellow birch	White ash	Hard maple	Soft maple
1991	207	82	123	88	33
1992	162	71	109	72	45
1993	176	73	121	91	54
1994	219	96	118	103	53
1995	241	99	126	115	56

Source: Management and Utilization Division, Maine Forest Service.

**Table 4.--Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1992-97**  
(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1992	154	101	197	84
1993	218	126	323	124
1994	214	138	306	128
1995	220	143	292	1992
1996:				1994
Jan-Feb	230	146	353	176
Mar-Apr	236	141	316	114
May-Jun	201	149	327	104
Jul-Aug	209	144	320	111
Sep-Oct	253	155	290	128
Nov-Dec	223	147	294	135
1996 average	225	147	317	128
1997:				
Jan-Feb	223	147	294	135
Mar-Apr	246	179	275	138
May-Jun	192	168	NA	138
Jul-Aug	--	--	--	--
Sep-Oct	--	--	--	--
Nov-Dec	--	--	--	--
1997 average	--	--	--	--

NA - Not available.

Source: Cooperative Extension Service, Mississippi State University, Mississippi State.

**Table 5.--Average hardwood stumpage prices in Ohio,  
statewide, 1992-97**  
(Dollars/Mbf, Doyle scale)

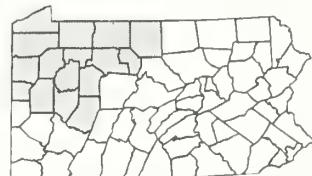


Year/season	White oak	Red oak	Cherry	Yellow-poplar
1992/spring	NA	NA	NA	NA
1992/fall	299	324	376	161
1993/spring	303	341	402	209
1993/fall	318	419	552	207
1994/spring	324	374	442	213
1994/fall	347	443	636	225
1995/spring	340	415	525	210
1995/fall	295	350	410	180
1996/spring	310	350	425	170
1996/fall	395	420	585	190
1997/spring	295	335	430	180
1997/fall	--	--	--	--

NA - Not available.

Source: Ohio Agricultural Statistics Service, Columbus, OH.

**Table 6.--Average hardwood mill prices of grade 1 logs in  
northwestern Pennsylvania, 1992-97**  
(Dollars/Mbf, International 1/4" scale)



Year/quarter	Red oak	White oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1992	455	321	527	228	176	158
1993	490	334	629	356	219	172
1994	555	483	710	352	232	756
1995	560	366	734	343	193	174
1996/1	506	317	634	321	189	229
1996/2	535	440	634	325	212	180
1996/3	510	401	725	375	206	216
1996/4	465	322	624	352	214	153
1996 avg.	504	370	654	343	205	195
1997/1	465	322	624	352	214	153
1997/2	521	399	684	424	226	179
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--

Source: Cooperative Extension Service, U.S. Department of Agriculture, The Pennsylvania State University.



**Table 7.--Average hardwood mill prices of grade 1 logs in  
Missouri, statewide, 1992-97  
(Dollars/Mbf, International 1/4" scale)**

Year/quarter	Red oak	White oak	Cherry	Ash	Soft maple	Black walnut
1992	297	285	319	277	162	509
1993	NA	NA	NA	NA	NA	NA
1994	362	332	422	295	252	543
1995	362	315	383	284	225	609
1996/1	370	310	285	240	255	565
1996/2	360	330	400	255	235	415
1996/3	350	330	485	285	230	570
1995/4	360	320	315	250	185	500
1996 avg.	340	315	398	253	254	484
1997/1	365	350	385	305	330	435
1997/2	440	435	500	370	410	585
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--

NA - Not available.

Source: Missouri Department of Conservation, Forestry Division.



**Table 8.--Average hardwood mill prices of grade 1 logs in  
eastern Tennessee, 1992-97  
(Dollars/Mbf, Doyle scale)**

Year/quarter	Red oak	White oak	Walnut	Ash	Hard maple	Yellow-poplar
1992	588	563	400	500	200	250
1993	725	669	450	525	325	288
1994	775	700	500	563	375	338
1995	775	700	500	588	363	363
1996/1	713	638	500	550	350	325
1996/2	713	638	500	550	350	325
1996/3	713	638	500	550	350	325
1996/4	712	638	500	550	350	325
1996 avg.	713	638	500	550	350	325
1997/1	713	663	500	550	400	350
1997/2	713	663	500	550	400	350
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--

Source: The Tennessee Division of Forestry, Utilization Section.

**Table 9.--Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1992-97**  
(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1992	247	198	281	169
1993	329	232	372	203
1994	314	224	392	188
1995	306	212	414	214
1996:				
Jan-Feb	305	210	415	234
Mar-Apr	NA	216	417	202
May-Jun	289	218	400	200
Jul-Aug	298	215	425	204
Sep-Oct	301	220	406	218
Nov-Dec	312	221	400	220
1995 avg.	306	212	414	214
1997:				
Jan-Feb	312	221	400	220
Mar-Apr	310	228	405	220
May-Jun	300	218	397	225
Jul-Aug	--	--	--	-
Sep-Oct	--	--	--	--
Nov-Dec	--	--	--	--
1997 avg.	--	--	--	--

NA - Not available.

Source: Cooperative Extension Service, Mississippi State University.

**Table 10.--Average hardwood mill prices of red oak logs in Ohio, statewide, 1992-1997**  
(Dollars/Mbf, Doyle scale)



Year/season	Average all grades	Grade 1 16 inches	Grade 1	Grade 2	Grade 3
1992/spring	NA	NA	NA	NA	NA
1992/fall	428	725	496	273	146
1993/spring	459	753	494	267	139
1993/fall	468	788	524	296	154
1994/spring	460	731	461	284	150
1994/fall	472	884	546	305	157
1995/spring	450	800	510	290	125
1995/fall	475	780	470	280	130
1996/spring	425	690	460	255	135
1996/fall	520	855	540	295	140
1997/spring	470	795	515	305	145
1997/fall	--	--	--	--	--

NA - Not available.

Source: Ohio Agricultural Statistics Service, Columbus, OH.

**Table 11.--Air-dried hardwood lumber prices, 1992-97**  
(Dollars/Mbf)

Year/quarter	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1992	638	290	674	501	356
1993	789	384	960	725	475
1994	800	425	1040	731	561
1995 avg.	728	370	979	699	524
1996/1	705	325	845	690	490
1996/2	705	355	845	690	490
1996/3	705	355	845	690	490
1996/4	705	360	845	720	500
1996 avg.	705	349	845	698	493
1997/1	710	390	855	770	530
1997/2	740	435	885	820	590
1997/3	--	--	--	--	--
1997/4	--	--	--	--	--
1997 avg.	--	--	--	--	--

Source: By permission from the Hardwood Market Report, Memphis, TN.

**Table 12.--Kiln-dried hardwood lumber prices, 1992-97**  
(Dollars/Mbf)

Year/quarter	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1992	876	432	803	694	NA
1993	1043	579	1457	987	NA
1994	1043	579	1457	987	775
1995	957	515	1315	958	719
1996/1	880-1030	455-505	1020-1160	935-960	655-705
1996/2	900-1005	465-515	960-1100	960-980	655-705
1996/3	920-1025	475-525	995-1135	980	675-725
1996/4	940-1045	515-565	1045-1185	980-1050	690-740
1996 avg.	976	495	1071	977	686
1997/1	955-1100	575-625	1055-1195	1050-1140	735-785
1997/2	975-1120	560-610	1055-1195	1095-1185	790-840
1997/3	--	--	--	--	--
1997/4	--	--	--	--	--
1997 avg.	--	--	--	--	--

NA - Not available.

Source: Weekly Hardwood Review, Charlotte, NC.

## HARDWOOD PRODUCT PRICES, PRODUCTION, AND EMPLOYMENT

**Table 13.--Producer price indexes for selected wood industries, 1992-97  
(1982=100)**

Year/ quarter	Hardwood lumber	Hardwood dimension	Wood kitchen cabinets	Wood household furniture	Upholstered wood household furniture	Wood office furniture	All commodities
1992	140.7	145.5	129.2	138.7	125.9	138.3	117.2
1993	163.3	162.1	135.1	143.9	128.9	141.3	118.9
1994	168.3	170.2	140.7	150.2	134.3	145.6	120.4
1995	167.0	173.8	146.5	155.2	137.0	149.6	124.7
1996/1	164.0	172.0	149.7	157.3	139.4	152.3	126.3
1996/2	163.4	173.1	150.4	158.1	139.8	153.2	127.8
1996/3	163.2	173.5	150.6	158.7	140.1	153.8	128.2
1996/4	165.1	173.9	150.8	159.8	140.6	154.8	128.3
1996 avg.	163.9	173.1	150.4	158.3	140.0	153.5	127.7
1997/1	171.2	176.8	153.0	160.2	141.4	158.6	128.3
1997/2	173.8	178.8	153.4	160.6	141.6	159.1	127.2
1997/3	--	--	--	--	--	--	--
1997/4	--	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--	--

Source: Producer Price Indexes, U.S. Department of Labor, Bureau of Labor Statistics.

**Table 14.--Value of domestic wood furniture shipments and wood furniture imports, 1991-96  
(Millions of dollars)**

Year	Value of <sup>1</sup> domestic wood furniture shipments (actual \$)	Value of <sup>2</sup> domestic wood furniture shipments (1982 \$)	Value of <sup>3</sup> wood furniture imports (actual \$, c.i.f.)	Value of wood <sup>2</sup> furniture imports (1982 \$, c.i.f.)	Ratio of <sup>4</sup> imports to domestic production
1991	7980	5894	2713	2004	.34
1992	7976 <sup>r</sup>	5751 <sup>r</sup>	2884	2079	.33
1993	8398 <sup>r</sup>	5836 <sup>r</sup>	3380	2349	.36
1994	9251 <sup>r</sup>	6159 <sup>r</sup>	4050	2696	.41
1995	9281 <sup>r</sup>	5980 <sup>r</sup>	4451	2868	.44
1996	9723 <sup>s</sup>	6142	4970	3140	.51

<sup>r</sup> - revised figure.

<sup>1</sup> Source: U.S. Department of Commerce, International Trade Administration.

<sup>2</sup> Deflated by wood household furniture price index listed in Table 13.

<sup>3</sup> Source: U.S. Department of Commerce, Bureau of the Census.

<sup>4</sup> Developed from columns 1 and 3.

<sup>s</sup> Estimated.

**Table 15.--Production of oak strip flooring,  
1991-96**

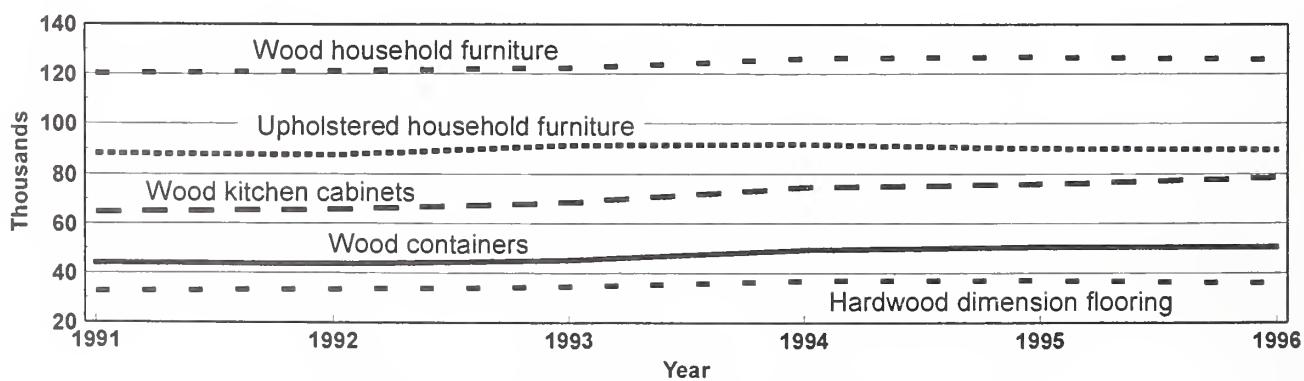
Year	Oak strip flooring (M feet)
1991	199,734
1992	222,573
1993	265,858
1994	307,689
1995	330,212
1996	367,465

Source: National Oak Flooring Manufacturers Association statistics.

**Table 16.--Employment in selected wood-using industries, 1992-97  
(Thousands)**

Year/quarter	Wood containers (SIC 244)	Upholstered household furniture (SIC 2512)	Wood household furniture (SIC 2511)	Wood kitchen cabinets (SIC 2434)	Hardwood dimension and flooring (SIC 2426)
1992	43.5	87.5	121.2	65.7	33.3
1993	45.2	91.3	122.4	68.6	34.5
1994	49.3	91.7	127.3	74.7	36.7
1995	50.5	90.0	126.9	76.0	37.0
1996/1	49.8	89.7	126.7	75.9	36.0
1996/2	50.3	89.7	125.9	78.7	36.1
1996/3	50.8	88.5	125.0	79.7	35.6
1996/4	50.6	90.0	126.4	79.8	35.9
1996 avg.	50.4	89.4	126.0	78.5	35.9
1997/1	53.2	86.2	124.0	79.8	35.4
1997/2	54.0	86.0	123.6	82.4	36.1
1997/3	--	--	--	--	--
1997/4	--	--	--	--	--
1997 avg.	--	--	--	--	--

Source: U.S. Department of Labor.



Employment in selected wood-using industries, 1991-1996.

## INTERNATIONAL HARDWOOD PRODUCT TRADE

**Table 17.--International exchange rate, foreign currency per U.S. dollar, 1992-1997**

Year/qtr.	Belgium (franc)	Canada (dollar)	China (yuan)	France (franc)	Germany (mark)	Hong Kong (H.K. \$)	Indonesia (rupiah)	Italy (lira)
1992	32.149	1.2087	5.5146	5.2938	1.5616	7.7406	2029.92	1232.4
1993	34.597	1.2901	5.7620	5.6633	1.6533	7.7356	2087.10	1573.7
1994	33.456	1.3656	8.6187	5.5520	1.6228	7.7284	2160.67	1612.4
1995	29.480	1.3724	8.000	4.9915	1.4331	7.7358	2248.61	1629.6
1996/1	30.186	1.3691	8.320	5.0351	1.4685	7.7323	2318.17	1573.2
1996/2	31.283	1.3645	8.328	5.1581	1.5223	7.7363	2344.08	1555.3
1996/3	30.843	1.3700	8.309	5.0939	1.4979	7.7350	2350.33	1521.2
1996/4	31.534	1.3503	8.299	5.1750	1.5305	7.7333	2346.68	1522.2
1996 avg.	30.962	1.3635	8.314	5.1155	1.5048	7.7343	2339.82	1543.0
1997/1	34.202	1.3585	8.295	5.5971	1.6586	7.7440	2403.27	1638.9
1997/2	35.353	1.3861	NA	5.7782	1.7138	7.7447	2437.23	1690.1
1997/3	--	--	--	--	--	--	--	--
1997/4	--	--	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--	--	--

Year/qtr.	Japan (yen)	Malaysia (ringgit)	Mexico (peso)	Singapore (S.dollar)	So.Korea (won)	Spain (pesetas)	Turkey (liras)	U.K. (pound)
1992	126.65	2.5474	3.09	1.6290	780.65	102.38	6872.42	0.570
1993	111.20	2.5741	3.12	1.6158	802.67	127.26	NA	0.667
1994	102.21	2.6242	3.38	1.5274	803.44	133.96	NA	0.653
1995	94.06	2.5044	6.42	1.4174	771.27	124.69	45845.1	0.634
1996/1	105.79	2.5480	7.53	1.4144	782.93	123.70	64399	0.653
1996/2	107.59	2.5012	7.48	1.4084	786.18	127.51	76499	0.656
1996/3	108.94	2.4952	7.56	1.4121	817.11	126.57	85587	0.643
1996/4	112.79	2.5186	7.84	1.4052	831.58	128.87	99136	0.611
1996 avg.	108.78	2.5158	7.60	1.4100	804.45	126.66	81405	0.641
1997/1	121.22	2.4852	7.86	1.4204	870.98	140.21	118697	0.614
1997/2	119.57	2.5074	7.92	1.4348	891.70	144.72	137685	0.612
1997/3	--	--	--	--	--	--	--	--
1997/4	--	--	--	--	--	--	--	--
1997 avg.	--	--	--	--	--	--	--	--

NA - Not available.

Source: International Monetary Fund.

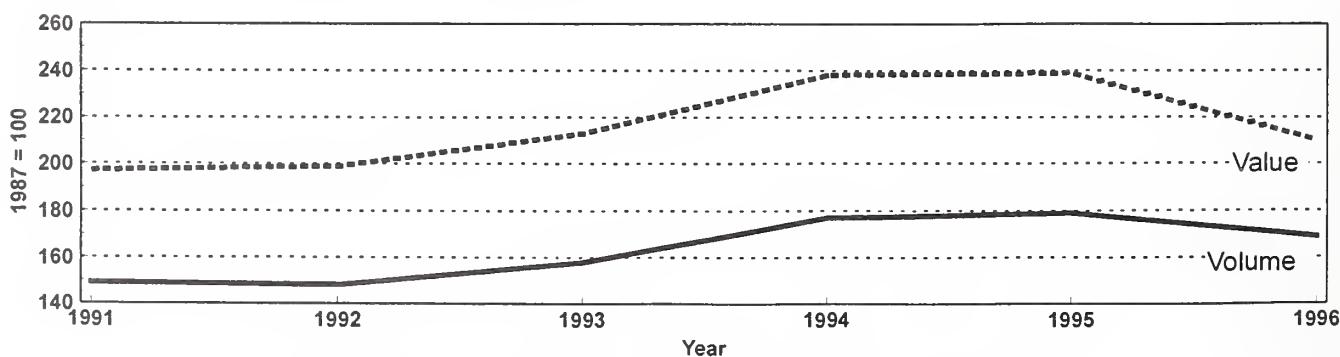
**Table 18.--Volume and value of U.S. hardwood log exports, by region, 1992-97**  
 (Cubic meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1992	522,481	62,713	16,405	5,727	193,992	82,005
1993	616,313	73,627	11,884	5,082	160,865	72,603
1994	710,078	89,685	18,546	6,686	209,276	88,937
1995	769,115	98,818	9,924	4,249	175,673	77,016
1996/1	184,952	25,354	1,823	766	45,568	18,868
1996/2	138,631	17,393	2,872	1,056	39,148	15,403
1996/3	170,411	19,016	3,122	1,127	15,363	6,225
1996/4	237,964	25,089	3,080	1,070	39,188	16,919
Total 1996	731,598	86,852	10,897	4,022	139,267	57,415
1997/1	275,578	31,127	3,040	1,279	47,187	20,914
1997/2	187,933	24,903	2,693	969	52,769	22,420
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	240,269	83,666	30,489	17,455	1,003,636	235,858
1993	278,393	99,937	3,132	10,066	1,070,587	252,253
1994	250,545	94,285	5,573	2,225	1,194,018	281,819
1995	254,395	101,376	2,127	701	1,211,234	282,159
1996/1	83,234	32,423	206	111	315,783	77,518
1996/2	90,430	34,326	239	60	271,320	68,234
1996/3	33,726	9,576	277	115	222,899	36,060
1996/4	56,356	23,469	37	15	336,625	66,562
Total 1996	263,746	99,784	759	301	1,146,627	248,373
1997/1	86,043	32,884	411	147	412,259	86,352
1997/2	97,587	37,831	1,540	177	342,522	86,302
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.

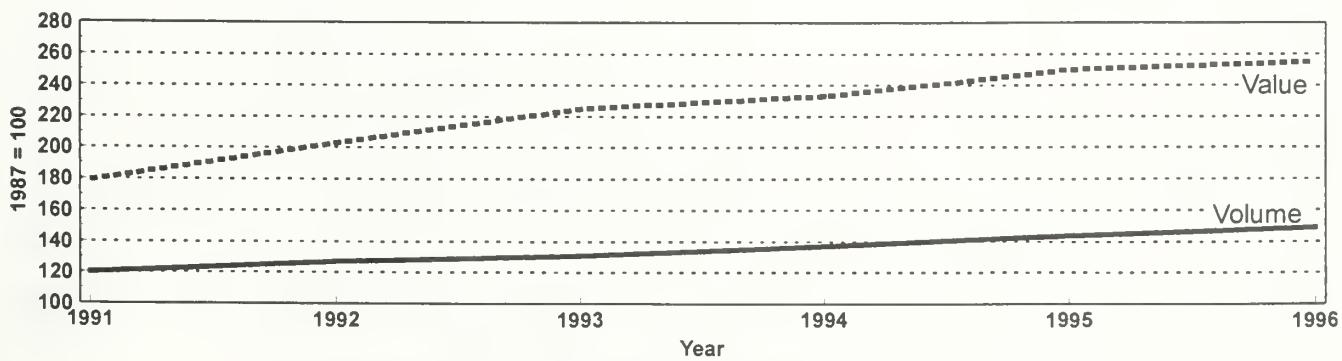


Volume and value index of all U.S. hardwood log exports, 1991-1996.

**Table 19.--Volume and value of U.S. hardwood lumber exports, by region, 1992-97**  
 (Cubic meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1992	602,457	195,976	129,753	43,497	801,865	431,696
1993	702,640	236,565	124,624	49,493	726,776	429,784
1994	762,734	253,617	141,505	55,540	745,828	436,218
1995	792,871	257,536	162,041	60,576	738,626	458,409
1996/1	201,230	65,356	42,804	16,738	197,868	124,920
1996/2	207,408	64,905	49,187	19,129	182,951	115,847
1996/3	192,757	60,723	48,543	18,293	158,558	101,589
1996/4	225,026	70,990	48,801	18,667	190,547	118,630
Total 1996	826,421	261,974	189,335	72,827	729,924	460,988
1997/1	245,712	83,396	41,120	15,887	224,652	140,716
1997/2	236,442	86,506	46,027	18,382	258,639	153,196
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--
Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	583,845	266,199	51,019	26,022	2,168,939	963,388
1993	641,792	322,400	51,095	28,518	2,246,927	1,066,755
1994	640,686	333,592	51,023	28,694	2,341,776	1,107,659
1995	715,575	380,197	57,127	30,089	2,466,240	1,186,811
1996/1	168,314	86,089	18,210	9,432	628,426	302,539
1996/2	196,007	101,145	18,085	9,404	653,638	310,433
1996/3	186,279	94,994	16,028	8,452	602,165	284,051
1996/4	186,254	95,614	13,218	7,829	663,846	311,731
Total 1996	736,854	377,847	65,541	35,119	2,548,075	1,208,754
1997/1	190,799	100,351	16,177	8,469	718,460	348,820
1997/2	225,438	115,533	21,630	11,850	788,176	385,464
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.



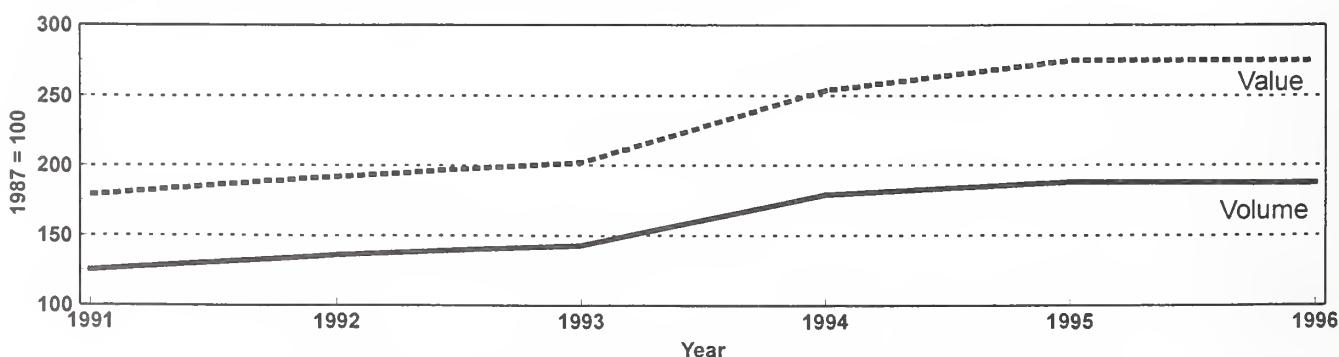
Volume and value index of all U.S. hardwood lumber exports, 1991-1996.

**Table 20.--Volume and value of U.S. hardwood veneer exports, by region, 1992-97**  
 (Million square meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1992	20.8	23,626	4.4	6,410	116.2	140,176
1993	25.0	28,719	9.0	12,312	106.7	129,095
1994	31.5	41,836	9.2	11,674	128.8	160,231
1995	33.6	42,405	9.1	12,053	141.4	182,733
1996/1	9.0	12,567	2.2	2,911	38.8	49,109
1996/2	10.2	14,521	1.9	2,504	38.5	48,987
1996/3	9.8	12,999	1.8	2,589	28.3	34,160
1996/4	11.3	14,927	2.0	2,722	34.9	43,165
Total 1996	40.3	55,014	7.9	10,722	140.5	175,426
1997/1	12.0	16,368	1.9	2,655	37.1	46,741
1997/2	13.1	18,013	5.5	5,177	37.1	48,215
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	27.9	38,264	5.7	6,974	175.1	215,449
1993	37.3	48,175	5.8	7,296	183.7	225,595
1994	53.0	61,390	7.8	9,289	230.2	284,423
1995	45.7	56,694	11.3	13,864	241.2	307,749
1996/1	9.3	11,554	2.6	3,451	61.9	79,594
1996/2	10.3	13,444	1.8	2,265	62.7	81,721
1996/3	10.5	14,169	2.8	3,393	53.2	67,315
1996/4	11.6	15,321	2.7	3,241	62.4	79,377
Total 1996	41.7	54,490	9.8	12,353	240.2	308,008
1997/1	12.9	16,797	1.8	2,249	65.8	84,807
1997/2	12.2	19,523	3.9	4,519	71.9	95,453
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.

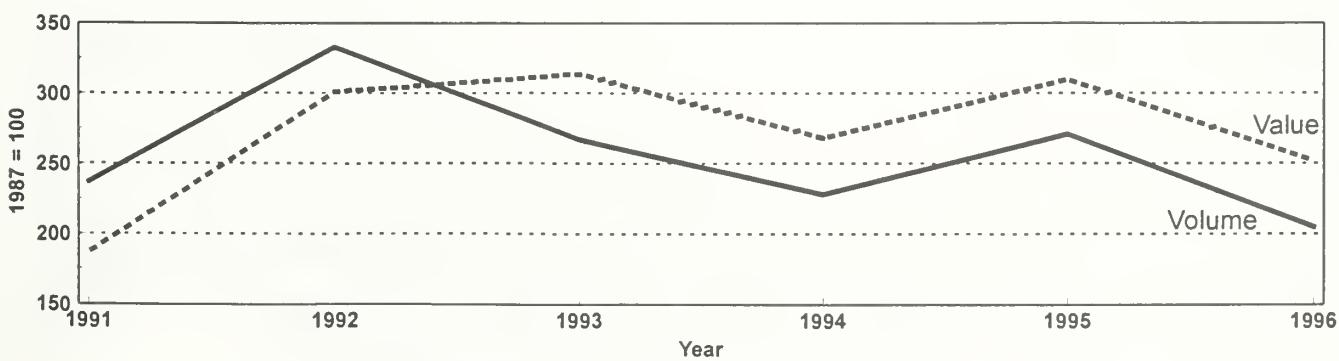


Volume and value index of all U.S. hardwood veneer exports, 1991-1996.

**Table 21.--Volume and value of U.S. hardwood plywood exports, by region, 1992-97**  
 (Cubic meters and thousands of dollars, f.a.s.)

Year/qtr.	Canada		Central & South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1992	64,046	19,245	73,338	14,301	30,299	8,212
1993	55,747	19,041	31,302	8,172	21,583	8,678
1994	57,720	17,082	38,323	10,780	2,590	2,152
1995	80,503	23,657	28,036	8,623	5,563	3,901
1996/1	20,703	6,429	8,821	2,683	361	369
1996/2	16,749	5,765	6,269	1,880	112	65
1996/3	13,972	5,141	8,003	2,350	153	19
1996/4	17,204	6,610	3,585	1,572	528	160
Total 1996	68,628	23,946	26,678	8,478	1,154	611
1997/1	16,957	6,494	5,537	2,025	190	98
1997/2	14,537	5,795	5,056	1,955	526	145
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--
Year/qtr.	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	6,964	1,596	1,102	383	175,749	43,737
1993	31,685	9,369	560	363	140,877	45,621
1994	19,884	8,471	1,415	408	119,932	38,896
1995	28,464	8,693	657	256	143,223	45,133
1996/1	2,591	1,370	1,032	185	33,508	11,033
1996/2	2,582	423	356	95	26,068	8,231
1996/3	1,559	292	853	128	24,540	7,927
1996/4	2,686	992	148	35	24,151	9,368
Total 1996	9,418	3,078	2,389	442	108,267	36,558
1997/1	1,229	547	477	96	24,390	9,260
1997/2	2,472	1,380	96	22	22,687	9,293
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.

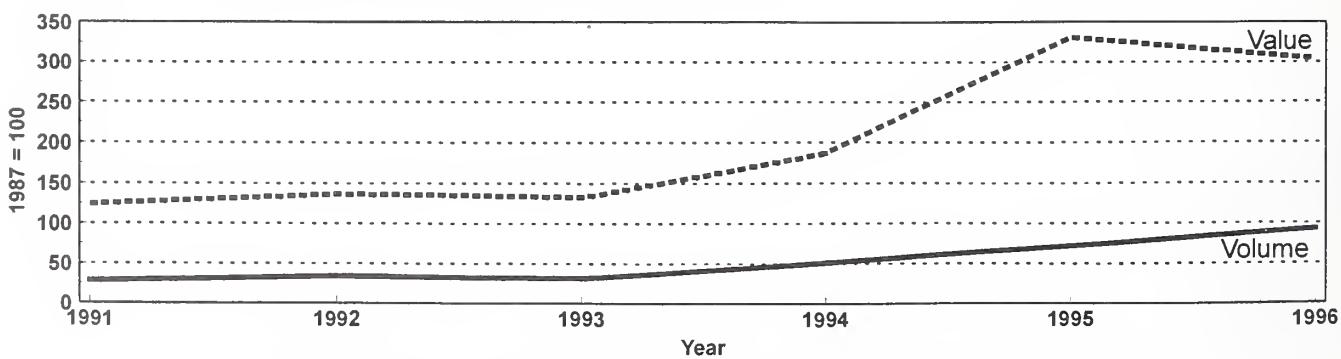


Volume and value index of all U.S. hardwood plywood exports, 1991-1996.

**Table 22.--Volume and value of U.S. hardwood log imports, by region, 1992-97**  
 (Cubic meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1992	16,069	2,242	238	105	1,968	787
1993	14,604	2,143	690	476	1,409	540
1994	26,081	3,947	1,236	505	1,661	567
1995	40,913	7,218	346	89	957	413
1996/1	15,832	2,948	202	73	0	0
1996/2	15,272	2,672	283	48	0	0
1996/3	10,531	2,170	70	33	0	0
1996/4	14,698	2,363	36	4	0	0
Total 1996	56,333	10,153	591	158	0	0
1997/1	44,491	6,016	908	340	104	65
1997/2	47,164	6,015	1,099	383	173	149
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--
Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	1,987	1,237	1,131	599	21,393	4,970
1993	2,012	1,106	908	573	19,623	4,837
1994	2,377	1,309	588	487	31,943	6,813
1995	1,818	3,719	1,003	572	45,037	12,014
1996/1	154	84	1,216	241	17,404	3,346
1996/2	129	63	153	147	15,837	2,929
1996/3	0	0	118	137	10,719	2,340
1996/4	0	0	120	102	14,854	2,469
Total 1996	283	147	1,607	627	58,814	11,084
1997/1	138	178	326	513	45,967	7,112
1997/2	244	65	1,414	402	50,094	7,017
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.



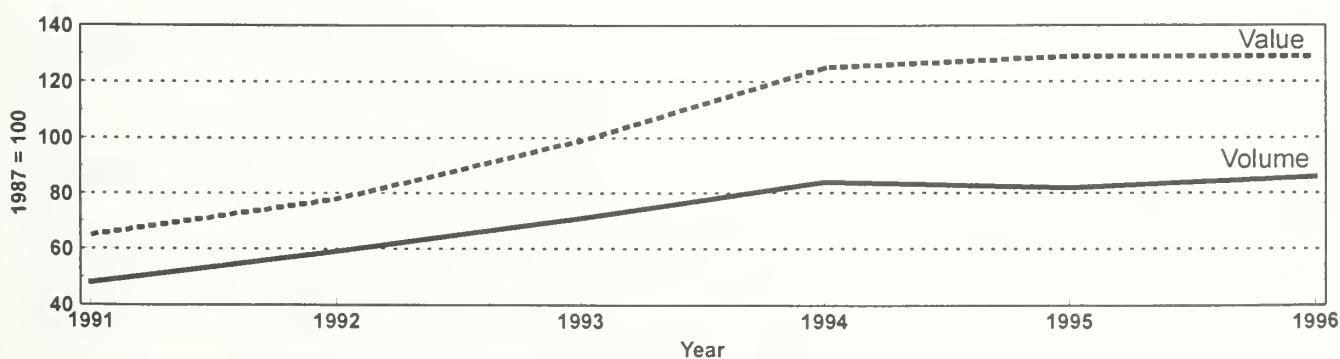
Volume and value index of all U.S. hardwood log imports, 1991-1996.

**Table 23.--Volume and value of U.S. hardwood lumber imports, by region, 1992-97**  
 (Cubic meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1992	361,466	75,071	181,783	79,136	6,125	3,658
1993	481,186	110,490	185,746	86,367	5,583	3,924
1994	549,342	130,835	220,647	111,143	12,859	5,820
1995	496,266	117,122	249,044	133,422	11,074	7,936
1996/1	129,265	32,196	59,564	33,790	2,693	1,901
1996/2	142,411	33,593	49,488	26,879	4,361	2,756
1996/3	128,649	31,324	54,011	28,647	13,408	3,697
1996/4	147,404	35,050	57,292	30,276	6,221	3,571
Total 1996	547,729	132,162	220,355	119,595	26,683	11,927
1997/1	146,885	37,103	47,762	27,974	4,923	2,953
1997/2	185,518	46,250	48,483	22,484	7,237	4,112
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	74,982	40,929	3,872	2,051	628,228	200,843
1993	74,578	48,549	7,372	3,790	754,465	253,117
1994	96,014	65,670	12,587	6,177	891,449	319,651
1995	91,396	67,649	15,263	4,202	863,043	330,329
1996/1	30,025	17,024	2,413	1,421	223,960	86,333
1996/2	22,616	14,894	7,097	1,112	225,973	79,234
1996/3	25,742	15,530	2,032	972	223,842	80,173
1996/4	21,845	15,052	3,468	1,279	236,230	85,228
Total 1996	100,228	62,501	15,010	4,784	910,005	330,968
1997/1	30,682	18,429	1,598	796	231,850	87,259
1997/2	26,441	19,578	11,021	1,024	278,700	93,447
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.

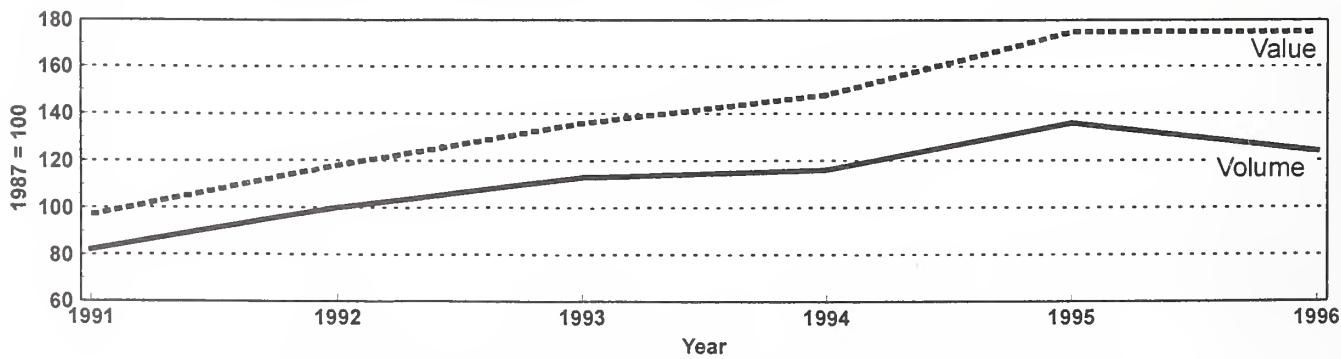


Volume and value index of all U.S. hardwood lumber imports, 1991-1996.

**Table 24.--Volume and value of U.S. hardwood veneer imports, by region, 1992-97**  
 (Million square meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1992	92.7	100,379	33.9	35,944	2.1	2,322
1993	107.6	111,860	42.1	48,057	3.6	4,677
1994	113.4	129,789	38.5	40,882	3.4	6,346
1995	110.2	143,695	53.5	51,534	10.6	13,999
1996/1	27.9	37,954	13.6	12,114	4.8	4,195
1996/2	31.1	42,427	10.8	10,204	3.6	4,512
1996/3	26.0	36,600	11.5	14,595	3.7	4,691
1996/4	25.5	36,325	11.3	13,037	3.8	4,116
Total 1996	110.6	153,306	47.3	49,948	15.9	17,516
1997/1	33.6	43,619	7.9	10,551	3.2	3,647
1997/2	29.0	42,019	7.9	11,531	2.7	3,479
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--
Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	19.4	17,438	7.5	231,454	155.6	179,226
1993	14.7	16,509	8.9	25,013	176.9	206,117
1994	11.0	13,797	14.1	33,304	180.8	224,117
1995	25.0	25,354	12.8	30,822	212.1	265,399
1996/1	1.9	2,320	2.7	6,710	50.8	63,294
1996/2	2.5	2,673	3.2	9,429	51.3	69,243
1996/3	2.8	3,702	2.0	7,033	46.0	66,622
1996/4	3.1	3,967	2.6	8,371	46.3	65,817
Total 1996	10.3	12,662	10.4	31,544	194.5	264,975
1997/1	2.4	2,601	2.8	8,601	50.0	69,020
1997/2	1.8	3,062	4.1	11,530	45.6	71,623
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. hardwood veneer imports, 1991-1996.

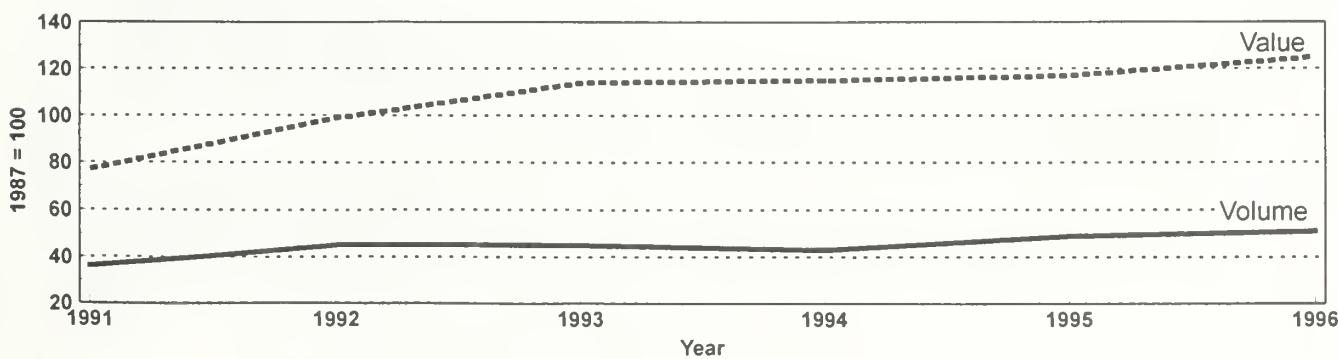
**Table 25---Volume and value of U.S. hardwood plywood imports, by region, 1992-97**  
 (Cubic meters and thousands of dollars, c.i.f.)

Year/qtr.	Canada		Central & South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1992	113,359	48,758	198,026	67,597	34	12
1993	123,456	60,060	298,495	115,885	258	141
1994	156,969	71,209	366,644	140,830	405	196
1995	179,327	82,083	361,577	147,184	0	0
1996/1	54,201	22,255	77,399	31,607	1,689	627
1996/2	60,127	25,021	86,649	34,175	0	0
1996/3	46,096	21,357	100,005	43,476	0	0
1996/4	54,085	24,563	82,132	36,186	0	0
Total 1996	214,509	93,196	347,185	145,442	1,689	627
1997/1	64,913	29,605	88,638	36,969	0	0
1997/2	71,565	31,196	91,056	34,480	0	0
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Year/qtr.	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1992	1,174,221	501,774	38,845	19,231	1,524,485	637,374
1993	1,056,320	534,010	55,409	28,393	1,533,938	738,487
1994	833,992	493,756	89,245	39,568	1,447,255	745,561
1995	992,080	473,331	131,124	53,535	1,664,108	756,133
1996/1	184,383	93,659	59,312	14,856	376,984	163,004
1996/2	207,928	104,870	41,066	18,967	396,770	183,033
1996/3	296,791	151,922	44,513	17,086	487,405	233,840
1996/4	312,636	151,231	34,311	14,020	483,164	226,003
Total 1996	1,001,738	501,683	179,202	64,933	1,744,323	805,879
1997/1	235,987	105,210	25,310	12,676	414,848	184,461
1997/2	217,614	111,073	49,038	20,519	429,273	197,267
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.

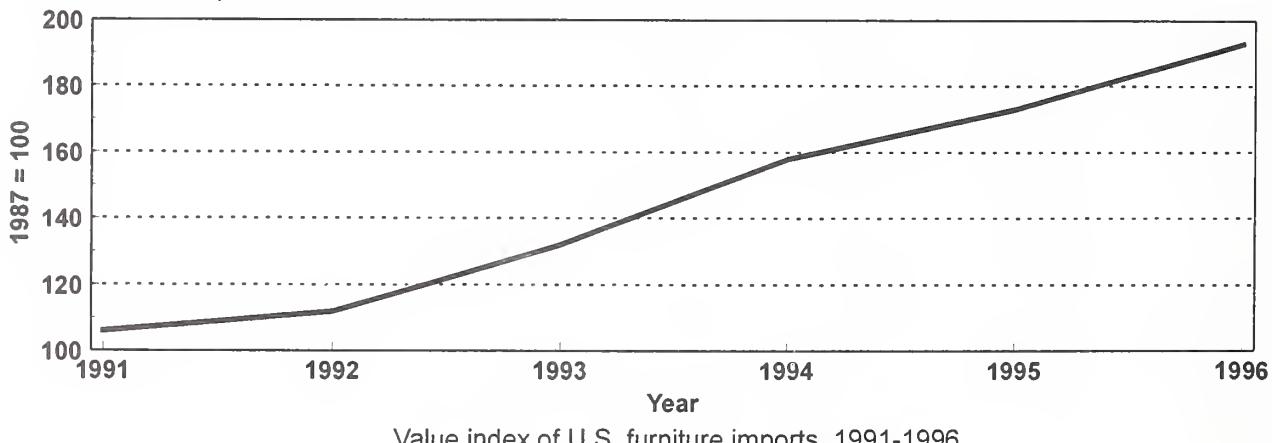


Volume and value index of all U.S. hardwood plywood imports, 1991-1996.

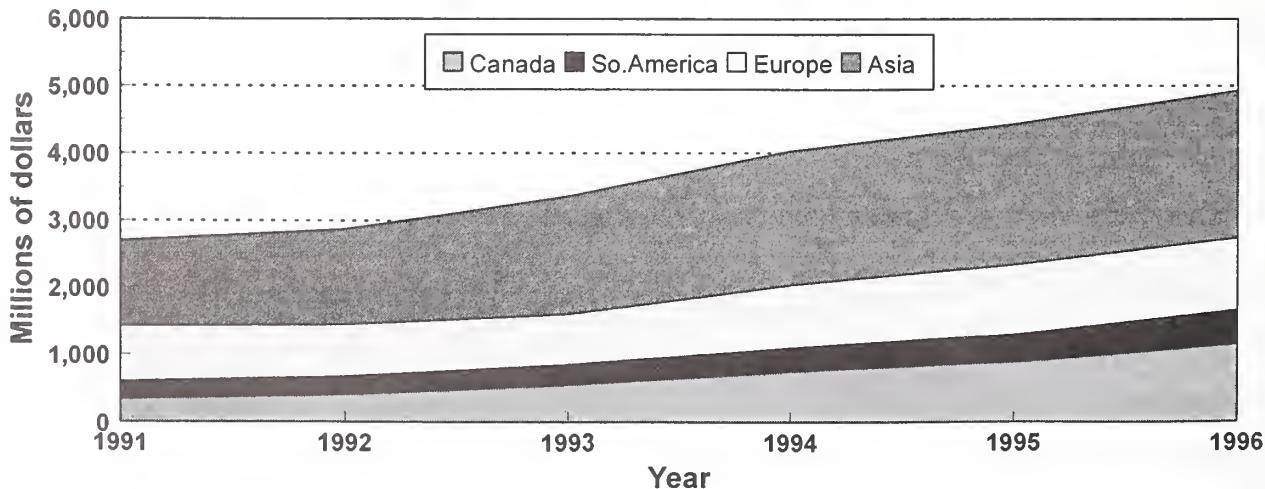
**Table 26.--Value of U.S. wood furniture imports, by region, 1992-97**  
 (Thousands of dollars, c.i.f.)

Year/qtr.	Canada	Caribbean, South, and Central America	Europe	Asia, Middle east, and Pacific	All other	Total
1992	412,880	269,361	784,314	1,412,052	5,740	2,884,347
1993	563,326	301,397	755,104	1,751,680	9,488	3,380,993
1994	753,590	347,697	941,112	1,993,394	14,546	4,050,338
1995	899,350	411,731	1,042,945	2,080,382	16,600	4,451,004
1996/1	234,964	110,438	257,609	505,236	4,732	1,112,978
1996/2	266,208	124,172	261,309	505,915	6,368	1,163,970
1996/3	319,196	129,138	275,510	581,003	7,647	1,312,497
1996/4	339,356	143,918	279,990	607,602	9,346	1,380,209
Total 1996	1,159,725	507,665	1,074,415	2,199,756	28,093	4,969,654
1997/1	313,458	137,877	268,766	533,173	5,897	1,259,166
1997/2	358,443	149,252	294,868	580,526	6,943	1,390,031
1997/3	--	--	--	--	--	--
1997/4	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.



Value index of U.S. furniture imports, 1991-1996.

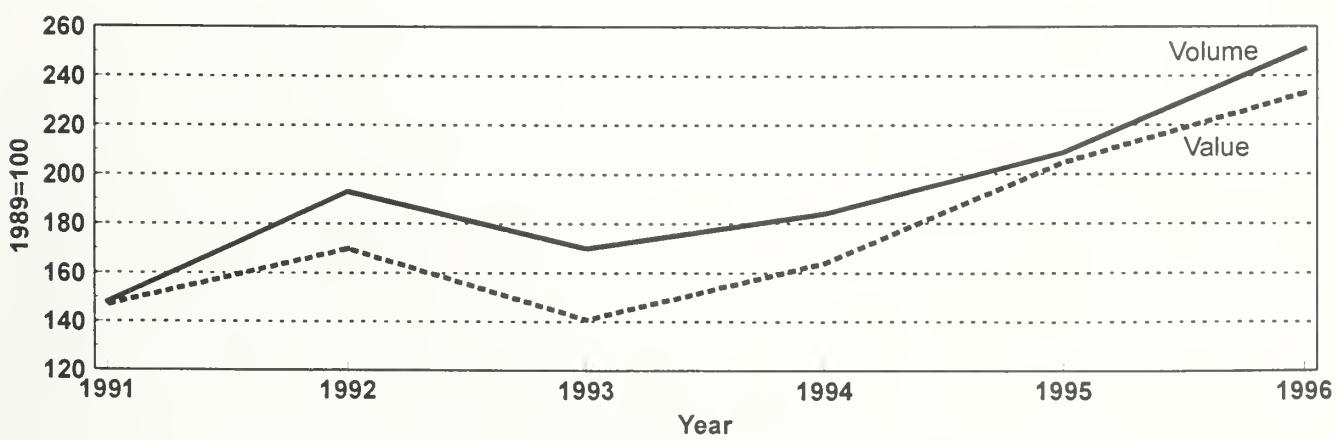


Value of U.S. furniture imports, by region, 1991-1996.

**Table 27.--Volume and value of U.S. exports of nonconiferous chips, by region, 1992-97**  
 (Tons and thousands of dollars, f.a.s.)

Year/qtr.	Western Europe		Canada		Japan		Mexico	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1992	1,519	110	148,519	6,256	2,565,423	234,189	18,120	1,224
1993	23,023	1,943	170,143	6,676	2,454,629	199,244	87	6
1994	728	923	248,845	9,562	2,649,198	230,564	1,442	60
1995	NA	1,218	284,126	12,007	3,031,485	299,663	18	20
1996/1	1	7	60,045	2,465	958,518	82,074	34	14
1996/2	143	46	40,336	1,682	1,126,312	103,917	0	0
1996/3	167	50	59,354	2,405	935,338	79,041	1	4
1996/4	1	3	50,585	2,089	825,416	79,867	0	0
Total 1996	312	106	210,320	8,641	3,845,584	344,898	35	18
1997/1	3	5	71,998	2,850	908,131	78,321	3	11
1997/2	313	36	66,303	2,242	1,013,493	84,020	74	13
1997/3	--	--	--	--	--	--	--	--
1997/4	--	--	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--	--	--
Year/qtr.	Taiwan		South Korea		All other		Total	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1992	326,060	13,221	235,992	20,237	2,984	333	3,298,617	275,568
1993	22	26	254,808	18,867	4,432	2,129	2,907,144	228,892
1994	0	0	248,635	23,763	1,824	177	3,150,672	265,050
1995	0	0	256,462	17,394	5,084	1,305	3,579,398	331,607
1996/1	0	0	106,274	9,342	216	39	1,125,088	93,940
1996/2	0	0	0	0	920	66	1,167,711	105,711
1996/3	21,525	2,153	17,787	1,809	722	68	1,034,894	85,528
1996/4	39,743	3,974	51,986	6,448	6,187	158	973,918	92,538
Total 1996	61,268	6,127	176,047	17,599	8,045	331	4,301,611	377,718
1997/1	0	0	7,411	1,304	52	11	987,598	82,502
1997/2	0	0	22,591	2,259	851	117	1,103,625	88,686
1997/3	--	--	--	--	--	--	--	--
1997/4	--	--	--	--	--	--	--	--
Total 1997	--	--	--	--	--	--	--	--

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. exports of nonconiferous chips, 1991-1996.

## **Definition of Terms**

c.i.f. (Cost, Insurance, Freight) - The term is used for shipment to designated overseas port of import. The seller quotes a price for the goods, including insurance, all transportation, and miscellaneous charges to the point of debarkation from vessel or aircraft.

f.a.s. (Free Alongside a Ship at designated U.S. port of export) - The seller quotes a price that includes charges for delivery of the goods alongside a vessel at the port. The seller handles the cost of unloading and wharfage. Loading, ocean transportation, and insurance are the buyer's responsibility.

## **Useful Conversion Factors**

1 MBF (lumber) = 2.36 cubic meters

1 MBF\* (logs - FAO) = 4.53 cubic meters

1 MBF\*\* (logs - Doyle scale) = 4.59 cubic meters

1 MBF\*\* (logs - International 1/4" rule) = 3.48 cubic meters

1 MBF\*\* (logs - Scribner) = 3.90 cubic meters

1 cubic meter = 35.32 cubic feet

1 ton = 2000 lbs.

1 metric ton = 2204.623 lbs.

\* Factor used by the Food and Agricultural Organization of the United Nations.

\*\* Approximation based on 16-foot log with a 15-inch diameter at the top end inside bark. Actual conversion will depend on the distribution of logs under consideration.

## **Literature Cited**

Luppold, William G. 1995. Causes and remedies for errors in international forest products trade data: Examples from the hardwood trade statistics. Forest Science. 41(2): 278-283.

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